The Displacement of the Economy

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Abstract

The economic system governing mass production and mass consumption has reached its sunset. The era of meta-capitalism characterized by the economy of *one* instead of a *mass* economy, has appeared as its successor. Wealth creation in meta-capitalism is due to value created by the interaction of individuals with other members of society. In meta-capitalist society, people undertake responsibility for their autonomation – a process coined by the term *socionomation*. Economics in meta-capitalism is not compatible with those driving mass production and so a new one should be developed, coined by the term *socionomics* reflecting the new reality. In the new era, growth is displaced to a new *topos,* where the cost of production is not the differentiating factor and profit must be redefined. This is the way to sustainable growth in a displaced economy.

2.1 A New Social System of Production

The economic system governing mass production and mass consumption has entered the phase of advanced ageing and has reached its sunset. The era of meta-capitalism, an era characterized by the economy of *one* instead of *mass* economy, appears as its successor. Wealth creation in meta-capitalism is not due to surplus created by labour, a characteristic of the era of aged capitalism, but due to limitless value created from the interaction of individuals within society. In meta-capitalist society, individuals undertake responsibility for their autonomation outside capitalist exploitation, a process coined by the term *socionomation*. *In this society* wealth is based on individualized value, the value of one and not of the mass. Economics in meta-capitalism is not compatible with that driving mass production and so a new one should be developed, coined here by the term socionomics reflecting the new reality. In the new era, growth is displaced to a new topos, where the cost of

from economics to socioeconomics and from capitalism to meta-capitalism

A.C. Tsigkas, *The Lean Enterprise*, Springer Texts in Business and Economics,
DOI 10.1007/978-3-642-29402-0_2,

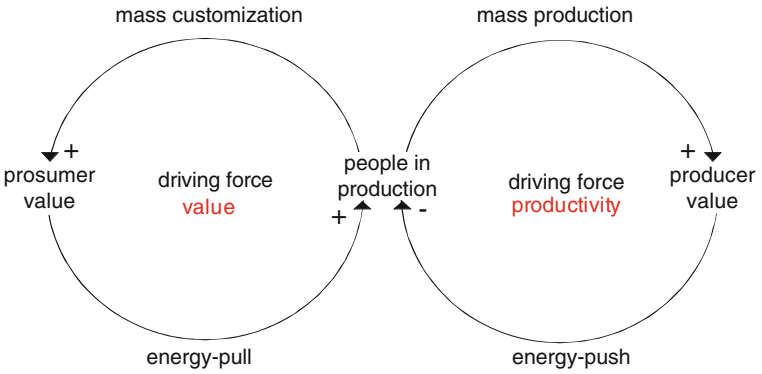

Fig. 2.1 Mass customization versus mass production

production is no longer the important differentiating factor and profit must be redefined. As a matter of fact, *p*rofit is a matter of definition and cost has no absolute meaning (Rechtin 2000). Socionomics needs to follow different paths than mass economics, leading to sources of knowledge, where profit is oriented towards co-creativity and co-producing value, and cost is displaced to measuring value degeneration, under the axiom that nothing has value if value is not assigned. Therefore, labour cost has neither *topos* in this social system of production nor is related to increasing competitiveness. It is really worth wondering why economists insist on theories from the era of Marx, the conditions of which are not valid today.

The meta-mass era, the era of *prosumer* becomes the leading standard for the new society of citizens, uniting society with technology, closing the gap between the two parts (Kondylis 1991). This happens because mass customization allows more and more people to use technology to obtain a higher standard of living through co-creativity.

The meta-mass social system of production evolves on the basis of two opposite running feedback loops shown in Fig. 2.1 (Tsigkas 2006). One loop with negative feedback, which due to productivity increase leads to less and less people in production (loop of mass production). A second loop with positive feedback, which due to value increase leads to more and more people in production (loop of mass customization). This loop uses forces (in the sense of potential) for value creation through the prosumer feeding back a new cycle of energy (in the sense of realization of the potential). The two loops, the one of mass production and that of mass customization operate in opposite directions, representing the old and the past world against the new and the future world respectively. They refer to two different world visions in terms of economy and technology. The mass production paradigm does not stop at the narrow meaning of production system, but extends to economic thinking, generally imposing accumulation of capital and separation from immediate gratification (Kondylis 1991). In contrast, the mass customization paradigm is

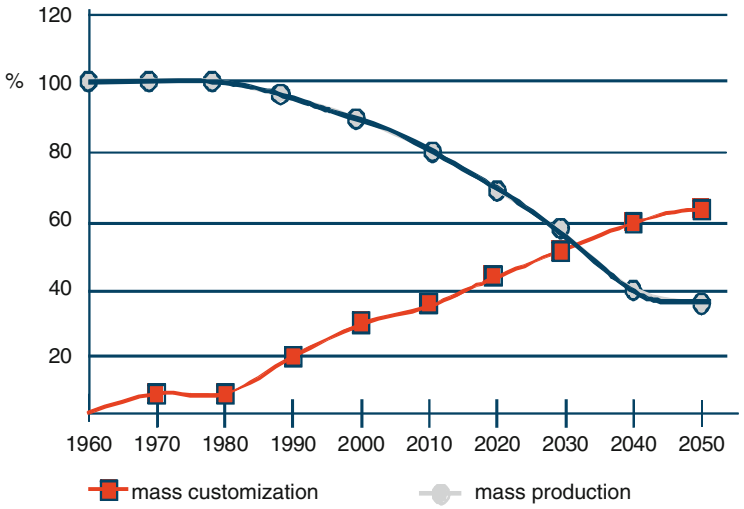

Fig. 2.2 Market shares of the two economies in the USA (Schuler and Buehlmann)

by definition against accumulation because it addresses the unique, the individual and it does not exist in reality without the active contribution of the autonomated person to value stream creation, an event that supports unification with immediate gratification. If Kondylis were alive today he would surely confirm this.

The two loops operate as follows. The more the loop of mass customization increases, the more the loop of mass production decreases until its complete elimination. Systems dynamics logic can be implemented in order to emulate the system response in the time axis in terms of socionomics and technology aspects with the systematic study of the phenomenon for facilitating evolution of the new way of wealth creation.

It is true that the co-existence of the two paradigms will last for some time in the future and maybe it will not be eliminated completely. An example of the future trend is illustrated in Fig. 2.2, based on research conducted in the USA, concerning market trends for all products sold in this country. The results of the research forecasts that around the year 2030, the number of individualized, non standardized products, will be equal to the number of products that are mass produced with an increased trend in favour of the individualized products.

Mass production and mass customization represent the day before and the day after of economic and social life respectively. Today it constitutes a field of controversy and conflict, not one of the classes, but a struggle for newly emerging environmental, social, economic and political values. Walking towards an *open lean enterprise* the path crosses the lean *topos* before arriving at mass customization and open innovation for continuous and durable value creation. This is the definition of sustainable growth.

2.2 Organization in the Post-Mass Production Era

In distributed and individualized markets where everybody cooperates with each other, the future is based on small sized, agile enterprises and factories serving local autonomated societies. In this production system, there is no central management or central control because operations are based on the interaction of entities involved in prosumer value creation, through value added communities in many cases (Tsigkas 2005). In mass production, central control exists with the purpose of full equipment load, aiming at reducing production costs. In this case the mathematical algorithmic logic undertakes the grouping and consequently the logistics of dividing standardized work in chunks or lots so that these can be loaded on individual resources, machines and people for the execution of orders. Lots are anonymous in the sense that there is usually no immediate link to customer order. Quite often a customer order is served by a number of different lots. This method of allocating and executing work fits the environment of mass production, far from the logic of customer centricity.

Many enterprises baptise the way they operate as *customer-centric*, when Marketing operates in this way. It is quite probable that Marketing approaches the customer individually, but this customer-centric strategy is not transferred to the way production and supply operates, an event leading with absolute certainty to production cost increase. While Marketing *thinks* in customers, production *thinks* in production *lots*, an event that often leads management to the false conclusion, that customer centricity increases the cost of production. The problem though does not relate to the customer-centric strategy, but to the fact that enterprises take partial decisions for parts of the company without the necessary harmonization with other parts of the company. A displacement in marketing strategy must be accompanied by the necessary displacements in all departments involved in the supply network for implementing the strategy, especially concerning production and purchasing. Otherwise it is certain that operating costs will increase with limited success, a fact that often leads management to abandon the strategy concerned.

Customer centricity is the inherent characteristic of the lean enterprise, which in today's market condition is not enough. With stable supply processes and production operations, as well as with relatively stable and predictable demand, enterprises can implement programs for the displacement to a lean environment. In almost all cases there are reports confirming that remarkable results have been achieved, with increased efficiency, drastic reductions in customer response times and finished products inventories. Local suppliers were sooner or later able to get aligned with *Just In Time* strategies demanded by their customers. However, in a globalized environment, as variation in demand and uncertainty in supply chains increase, markets instead of showing tendencies of mass-made become increasingly mass individualized, against the forecast of many leading economists. Pressures of open innovative markets of *one* on enterprises change scope and infrastructure in information technology systems are not suitable any more to cope with the new individualized needs and challenges. In order for an enterprise to continue to remain lean in this environment, it must prepare itself for moving beyond the limits of the

classical lean principles defined by the Toyota Production System (TPS). Lean principles, when implemented and formalized through TPS, are no longer sustainable in such an unstable and uncertain environment. To achieve sustainability of lean operations under unstable conditions, companies should acquire the capacity to displace themselves into a new topos when needed as quickly as possible and with only a few and weak oscillations. The quicker this is achieved, the quicker the enterprise will improve its capacity for self sustainability. However, the question remains with respect to how an enterprise can sustain itself in such a dynamic environment, in other words, can become self sustainable (Zeleny 1997). Self sustainability is the main characteristic of the new lean enterprise. Lean self sustainable entities should be able to reproduce themselves and the knowledge required in a moving environment chasing moving targets. Furthermore, new lean enterprises should be capable of continuous learning and producing new knowledge, not only internally (Senge 2006), but also externally through immediate interaction with the market stakeholders as well as innovation sources. *Living Labs* (Chatzimichailidou et al. 2011) *will* operate as an open knowledge topos facilitating and accelerating the development of innovations through incorporating the customer-supplier into the value creation cycle (Reichwald and Piller 2006) extending this knowledge to the whole supply chain. The interaction may take many forms, depending on the relations defined between the enterprise and the customer-supplier. As far as supply of the new lean enterprise is concerned, this deviates from the classic model of constant co-operations that prevailed in recent years, as a basic principle of lean philosophy. The new lean model will move towards more volatile and unlimited relationships. It is totally reasonable that supply networks will be created for the satisfaction of concrete customer needs or a number of customers often only once. These types of supply networks are likely to be organized through value added communities.

In the following there is a description of the five basic principles on which the new lean enterprise should be based for achieving self sustainability:

- Open innovation and customer created value
- Displacement to a new topos
- Tolerance for mistakes
- Dynamic equilibrium
- Emerging characteristics

2.2.1 Open Innovation and Customer Created Value

The signifying difference between the new and the old lean enterprise is the nature of value. Old lean thinking and practice concentrate on activities that add value, instead of activities that create value. In the old lean environment, value is faced in a negative way, as a production *disadvantage (operational cost) instead of in a positive way as an advantage of marketing (market share)*. In the old lean

enterprise, the customer-user is not part of the value creation cycle. In the era of open innovation and mass customization, the customer-user is part of an open structure of an expanded value stream and the energy is fulfilled either during the development phase or during the production phase, when the customer completes or issues instructions to the *host* company (mass customization). The incorporation of customer created value and of open innovation is the prerequisite for the absolute satisfaction of the customer-user. In a society where scarcity of goods has long been surpassed, differentiation can originate through customer involvement in the value creation circuit. The new lean extended enterprise is involved in two types of production: *eteropoiesis*, the production of other things, that is goods and services and *autopoiesis*, where it reproduces itself that is the ability to produce itself. Self sustainability critically depends on the reliability of the second type of production, that of autopoioesis. Only an enterprise which can continuously produce itself and in this way displace itself quickly to a new topos, can be regarded as self sustainable. Consequently, a new set of capabilities is required for the new lean enterprise to become self sustainable, an issue studied in a future volume.

2.2.2 Displacement to a New Topos

It is important to see the enterprise as a living system and not as a mechanical construct on the basis of Taylor principles (Taylor 1911). Taylor claims that human systems evolve via gradual changes, which introduce increased competitiveness in their environment. Unlike machines, human systems cannot be centrally programmed and do not submit to automation. Viable enterprises are by definition evolution capable organisms. According to Bergson, who was a supporter of creative evolution: *being means change, change means mature and mature means I create endlessly myself* (Bergson 1998). Rephrasing Bergson and according to Zeleny, an organism may exist only if it shows self confidence, which is the precondition for its viability (Zeleny 1997). The old lean philosophy, at least as implemented in the West, uses the enterprise as a machine, exactly as both Fordism and Taylorism look at it through the division of labour. Consequently, the lean enterprise must have the will to abandon control and begin encouraging variability and experimentation, essential elements for moving to a new topos. The old lean philosophy does not promote variability and experimentation is limited to the standardisation of products and processes. Initiatives undertaken in lean production target almost zero variability in process execution. Encouraging variability and experimentation means necessarily granting greater support for autonomation to management and individuals. If an individual or a group behaves in a way which improves the position of an organism as a whole, then this individual or group should be rewarded both monetarily and through development of career opportunities inside the company.

2.2.3 Tolerance to Mistakes

An organism improving itself must have high tolerance for mistakes. This can be achieved through duplicate groups in those operations that create value. The aim is to allow new ideas to prevail and, at the same time, protect customers from the influence of ideas which have not been tested with success. This approach is quite different from the approach of *zero-defects* for managing operations as the philosophy of the classical lean production or Six Sigma requires. An enterprise with zero tolerance at the operational level runs into the danger of discovering that there is no capacity for development. If an organism can function so that it tolerates deviations from fixed operational policies in the search for improvements, but it retains the ability to stop quickly before the change may create damage, then this is the right mixture for quick self displacement.

2.2.4 Dynamic Equilibrium

The ability to sustain a dynamic equilibrium is essential for an organization which pursues displacement. This means that an equilibrium must be achieved through movement rather than using the existing topos as a source of stability. In an operational environment requiring continuous movement, enterprises must learn to sustain their equilibrium while moving at increasing speed.

2.2.5 Emerging Characteristics

If a set of collaborative tools leads to a new level of solving problems which could not have been achieved through conventional meetings, this is an emerging characteristic, which must be recognized and used for the good of the enterprise (Taylor 1998). Anticipating, searching and extending new non-expected behaviour is the most important step towards displacement. It is also the step which is about to push the enterprise into the third level of viability – namely quick creativity for step differentiation.

2.3 Review of Lean Thinking

From the above mentioned, it is concluded that old lean philosophy must be reviewed in the post-mass production era, the era of meta-capitalism and a globalized economy. In the following lines, there is a categorization of production strategies according to the way an enterprise operates. As an independent variable the way the enterprise *thinks* is introduced, that is how its topos in the market is conceived, how it is reproducing itself. The way it acts must be aligned to the way of thinking (Fig. 2.3).

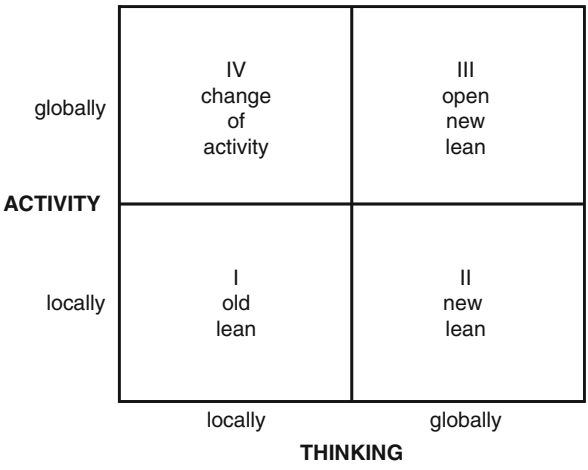

Fig. 2.3 Operations strategies of a lean enterprise

According to the above categorization, four possible types of enterprises are identified:

1. *Enterprises thinking locally and acting locally*. This category of enterprises can implement the old lean approach and attain impressive results. Most successful cases have been reported from this type of enterprise. However, the benefits very quickly reach their limits so that it is only a matter of time when these enterprises must reconsider and relocate to a new topos-category. The next logical and natural step to take is to start thinking on a world scale, although they will continue acting locally. It is exactly the point where the company must reposition from an old lean topos to a new lean topos through an internal and external learning process. A new lean approach gradually incorporating open innovation and mass customization is the way, as described above, for attaining sustainability benefits already achieved. Typical representatives of this category are small and medium enterprises (SME) wishing to expand their opportunities in the market.
2. *Enterprises thinking globally and acting locally*. For enterprises which have already started their displacement to implementing classical methods of lean production, this journey is certainly a learning experience. Nevertheless, it is also an opportunity to move quickly towards a new lean topos without waiting to evaluate the results of this movement. Learning to become more open, these enterprises will decrease the time interval for amortizing the investment and will accelerate the displacement of the enterprise towards an environment with new enterprise requirements. Typical representatives of this category are producers of consumer goods. Aiming to fully incorporate open innovation and mass customization into their operations is exactly what drives enterprises to attain sustainability.
3. *Enterprises thinking globally and acting globally*. The old lean thinking at this level loses its meaning. The supply chain is created on a concrete base with the

target of fulfilling single and singular needs. Value adding communities organized in a flexible way is a possible solution to the problem (Tsigkas et al. 2006). The creation speed of such networks seems to be the way through many enterprises will be able to fulfil concrete and individual demand. It is believed that good opportunities for SME in Europe exist for operating in the global market creating, in each case, networks in the form of value adding communities for individualized activities.

4. *Enterprises which think locally and act globally*. The enterprises of this category must redefine their strategies, because it is not clear if a strategy will have success and the company must relocate to a different category. From this point of view, the relative topos must be abandoned as soon as possible, if it has not already happened. New strategies and the respective paths must be defined and executed on the basis of the above mentioned.

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http://www.springer.com/978-3-642-29401-3

The Lean Enterprise
From the Mass Economy to the Economy of One
Tsigkas, A.
2013, XIV, 269 p. 400 illus., 100 illus. in color.,
Hardcover
ISBN: 978-3-642-29401-3